## DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 69.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-023337 Address: 333 Burma Road **Date Inspected:** 17-May-2009

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China

**CWI Name: CWI Present:** Yes N/A No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A Yes N/A **Electrode to specification:** No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component: OBG** Trial Assembly

## **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance (QA) Inspector, S. Manjunath Math was present during the time noted above for observations relative to the work being performed.

This QA Inspector randomly observed the following work in progress:

**BAY 14** 

Orthotropic Box Girder (OBG)

This QA Inspector observed ZPMC welding personnel performing Submerged Arc Welding (SAW) with ceramic backing for Deck Panel for Segment 7EW. The weld joint no. SEG041\*-003 is in progress. The welder is identified as 045265. Welder was welding in 1G (Flat) position. In process SAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-223(1)2-T-1.

This QA Inspector observed ZPMC welding personnel performing Submerged Arc Welding (SAW) with ceramic backing for Deck Panel for Segment 7DW. The weld joint no. SEG039\*-033 is in progress. The welder is identified as 045265. Welder was welding in 1G (Flat) position. In process SAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-223(1)2-T-1.

This QA Inspector observed ZPMC welding personnel performing Submerged Arc Welding (SAW) for Side Panel between SP 731A to SP 771A for Segment 9CW. The weld joint no. SEG-053A-008 is in progress. The welder is

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identified as 250050. Welder was welding in 1G (Flat) position. In process SAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2231-B-L2C-S-2

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Bottom Panel between BP 181A to BP 73A for Segment 9DE. The weld joint no. SEG-056A-004 is in progress. Welder is identified as 050988. Welder was welding CJP in 1G (Flat) position. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2231—U2-F.

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Deck Plate Diaphragm Floor Beam for Segment 6AW. The weld joint no. SSD12-PP40-002 and 009 is in progress. Welder is identified as 200569. Welder was welding CJP in 3G (Vertical) position. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2213-B-U2.

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Deck Plate Diaphragm Floor Beam for Segment 6AW. The weld joint no. SSD9-PP37-003 and 004 is in progress. Welder is identified as 066401. Welder was welding Fillet in 3F (Vertical) position. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2213-B-U2.

This QA Inspector observed ZPMC welding personnel performing Shielded Metal Arc Welding (SMAW) for Deck Plate Diaphragm Floor Beam for Segment 6AW. The weld joint no. Seg 027\*-007; 008 and 009 is in progress. Welder is identified as 037996 and 066326. Welder was welding Fillet in 3F (Vertical) position. In process SMAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-P-2213-B-U2.

**BAY 19** 

## Suspender Bracket

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Suspender Bracket. The weld joint no. SB03-SB24W 001 and 020 is in progress. The welder is identified as 062756. Welder was welding CJP and Fillet in 3G (Vertical) and 3F (Vertical) position. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2233-Tc-U5F and WPS-B-T-2133.

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Suspender Bracket. The weld joint no. SB3-SB-24W 018 and 011 is in progress. The welder is identified as 062756. Welder was welding CJP and Fillet in 2G (Horizontal) and 2F (Horizontal) position. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2232-P4-F and WPS-B-T-2132.

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Suspender Bracket. The weld joint no. SB03-SB28W 001 and 019 is in progress. The welder is identified as 062763. Welder was welding CJP and Fillet in 3G (Vertical) and 3F (Vertical) position. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2233-Tc-U5F

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and WPS-B-T-2133.

This QA Inspector observed ZPMC welding personnel performing Flux Cored Arc Welding (FCAW) for Suspender Bracket. The weld joint no. SB3-SB-28W 001 and 019 is in progress. The welder is identified as 062762. Welder was welding CJP and Fillet in 2G (Horizontal) and 2F (Horizontal) position. In process FCAW appears to be progressing in compliance with Caltrans Engineer Approved welding procedure i.e., WPS-B-T-2232-P4-F and WPS-B-T-2132.

The designated ZPMC CWI for the West Line is Mr. Shen Fu Yoo and QC Mr. Li Ming Yang, Mr. Liu Wan Ning and Mr. Liu Rudan for Bay 14.

The designated ZPMC CWI for the West Line is Mr. Liu Fawen and QC Mr. Zhou Cheng and Mr. Shen Jian Guo for Bay 19.

Unless otherwise noted, all work observed on this date appeared to generally comply with applicable contract documents.

## **Summary of Conversations:**

No relevant conversations were reported on this date.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Eric Tsang 15000422372, who represents the Office of Structural Materials for your project.

Inspected By:	Math,Manjunath	Quality Assurance Inspector
Reviewed By:	Miller,Mark	QA Reviewer